

## REMARKS

The Examiner is thanked for the indication that claims 1, 3, 5-9, 11, and 31 are allowed and claims 34-41 are allowable if rewritten in independent form.

Claims 1, 3, 5-9, 11, and 31-47 are pending in the instant application. Claims 32-33 presently stand rejected. Claim 35 is amended herein. Claims 42-47 are newly presented. Entry of this amendment and reconsideration of the pending claims are respectfully requested.

### *Claim Rejections – 35 U.S.C. § 102*

Claims 32 and 33 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Wakejima et al. (US 2002/0025664 A1).

A claim is anticipated only if each and every element of the claim is found in a single reference. M.P.E.P. § 2131 (citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628 (Fed. Cir. 1987)). “The identical invention must be shown in as complete detail as is contained in the claim.” M.P.E.P. § 2131 (citing *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226 (Fed. Cir. 1989)).

Independent claim 32 recites, in pertinent part,

defining a ridge section in the overgrowth layer with a second etching substance reactive with the overgrowth layer and **substantially non-reactive with the sacrificial layer**; and

Applicants respectfully submit that Wakejima fails to disclose a second etching substance used to define a ridge section in an overgrowth layer that is “substantially non-reactive with the sacrificial layer...”

To be sure, referring to Wakejima, the Examiner cites sacrificial SiO<sub>2</sub> layer 2 as corresponding to the claimed “sacrificial layer” and further cites conductor layer 5 as corresponding to the claimed “overgrowth layer.” The Examiner then cites the Ar ion milling and reactive ion etching (RIE) discussed in paragraph [0082] of Wakejima as disclosing the second etching substance reactive with the overgrowth layer (see FIG. 2d of Wakejima). However, paragraph [0082] of Wakejima states,

[0082] Successively, on the whole surface is formed, by sputtering, a TiN film 8 in a thickness of about 50 nm (FIG. 2(c)). Then, a resist is coated on the portion of the TiN film 8 above the Y-shaped opening 4, and **etching is**

**conducted for the TiN film 8, the adhesion layer 6 and the conductor layer 5 by using, in combination, Ar ion milling and reactive ion etching(RIE), to form a gate electrode shape as shown in FIG. 2(d). (emphasis added)**

Accordingly, this portion of Wakejima merely discloses that the gate electrode shape, as illustrated in FIG. 2(d) of Wakejima, is formed using Ar ion milling and RIE-etching to remove TiN film 8, adhesion layer 6, and conductor layer 5. However, this portion of Wakejima fails to disclose that Ar ion milling and/or RIE-etching are “substantially non-reactive with SiO<sub>2</sub> layer 2. It is possible that the Ar ion milling and RIE-etching step is timed or monitored so as not to etch away SiO<sub>2</sub> layer 2. In any event, Wakejima is silent on this point and certainly does not disclose this element of claim 32, as affirmatively required under M.P.E.P. § 2131 to constitute an anticipating reference.

Consequently, Wakejima fails to disclose each and every element of claim 32, as required under M.P.E.P. § 2131. Accordingly, Applicants request that the instant §102 rejection of claim 32 be withdrawn.

The dependent claim 33 is novel over the prior art of record for at least the same reason as discussed above in connection with independent claim 32, in addition to adding further limitations of its own. Accordingly, Applicants respectfully request that the instant § 102 rejection of dependent claim 33 be withdrawn.

#### New Claims

New claim 42 includes all subject matter of claim 36 and its base claim 32, written in independent form. The Examiner kindly indicated that claim 36 was allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims. Since there is no intervening claim between claim 36 and base claim 32, new claim 42 includes subject matter deemed allowable by the Examiner.

#### **CONCLUSION**

In view of the foregoing amendments and remarks, Applicants believe the applicable rejections have been overcome and all claims remaining in the application are presently in condition for allowance. Accordingly, favorable consideration and a Notice

of Allowance are earnestly solicited. The Examiner is invited to telephone the undersigned representative at (206) 292-8600 if the Examiner believes that an interview might be useful for any reason.


### CHARGE DEPOSIT ACCOUNT

It is not believed that extensions of time are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a). Any fees required therefore are hereby authorized to be charged to Deposit Account No. 02-2666. Please credit any overpayment to the same deposit account.

Respectfully submitted,

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Date: Jan. 30, 2007

  
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